

ABSTRACT OF THE DISCLOSURE

The present invention discloses an expression method for non-naturally-occurring amino acid-containing protein comprising: expressing in animal cells: (A) a mutant tyrosyl-tRNA synthetase that is a mutation of tyrosyl-tRNA synthetase originating in *E. coli* with an enhanced specificity for a non-naturally-occurring tyrosine derivative as compared with the specificity for tyrosine; (B) suppressor tRNA originating in *Bacillus* species, *Mycoplasma* species or *Staphylococcus* species of eubacteria and capable of binding with the tyrosine derivative in the presence of the mutant tyrosyl tRNA synthetase; and, (C) a desired protein gene that has undergone a nonsense mutation at a desired site; wherein, the tyrosine derivative is incorporated at the location of this nonsense mutation.